

REMARKS

The foregoing amendments and following remarks are submitted to address the issues raised in the Office Action mailed October 3, 2005. Claims 1-14 are currently pending in the application. Claims 1-14 stand rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,627,691 to Mowrey et al.. Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,627,691 to Mowrey et al.

Applicant respectfully requests consideration of the application in view of the foregoing amendments and the following remarks.

Claim Amendments

Claim 1 was amended to more particularly define the scope of Applicant's invention. More specifically the limitation regarding lack of organic crosslinker was moved from the preamble to the body of the claim.

Claims 1-14 – 35 U.S.C. § 102(a)

The rejection of claims 1-14 under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,627,691 to Mowrey et al. is respectfully traversed.

U.S. Patent No. 6,627,691 to Mowrey et al. (hereinafter "Mowrey") relates to an "aqueous adhesive composition, as for bonding nitrile rubbers to a metal substrate, has very good pre-bake resistance. The adhesive composition comprises a phenolic novolac or resole resin, chlorinated natural rubber, a reactive fillers, and precipitated silica. Utilization of the adhesive composition results in essentially failure of the nitrile rubber." (Mowrey, Abstract) Additionally, Mowrey teaches the inclusion of a methylene donor such as gamma-polyoxymethylene, as an organic crosslinking agent. (See, Mowrey at col. 5, line 65 – col. 6, line 6)

Mowrey fails to anticipate Applicant's claimed invention due to the inclusion of an organic crosslinking agent in the composition. The presently claimed invention specifically excludes the addition of an organic crosslinker. The conventional thinking prior to Applicant's discovery, as illustrated by Mowrey, was that a crosslinking agent was necessary in the novolak system. As is demonstrated in the examples in Mowrey, every formulation contains an organic crosslinking agent. (See, Examples 1-3, compositions "Control", and 1-8) By formulating a new novolak bonding composition without an organic crosslinker, Applicant has achieved unexpected, yet desirous results.

One key aspect of the present invention is the ability to achieve better pre-bake resistance than the prior art. This is achieved, in part, through the removal of the organic crosslinking agent. It is believed that the effectiveness of the adhesive containing a phenolic novolak resin in the absence of organic crosslinking agent is that curing mechanisms in the adhesive do not occur to a significant extent during an initial induction period which can be several minutes at 300 °F., up to 30 minutes at 350 °F. during a pre-bake, but surprisingly provide environmentally-resistant bonding performance under several tests as illustrated in the disclosure of the present application. (See, Application, para. [0033]) Nowhere in Mowrey is the elimination of an organic crosslinker considered. Prior to Applicant's invention, the conventional wisdom deemed this constituent necessary to the proper performance of a nitrile rubber to metal bonding agent containing a novolak resin.

As Mowrey fails to disclose each and every limitation of the presently claimed invention, specifically the elimination of an organic crosslinker, Applicant respectfully requests reconsideration of the application and removal of the rejection of claims 1-14 under 35 U.S.C. § 102(a).

Claims 1-14 – 35 U.S.C. § 103(a)

The rejection of claims 1-14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,627,691 to Mowrey et al. is respectfully traversed.

As discussed above, Applicant's claimed invention specifically recites the absence of an organic crosslinking agent in the novolak system. Mowrey does not teach or suggest the removal of the crosslinking agent as this was through to be a necessary constituent at the time of the invention. As such, Mowrey fails to render the present invention obvious and Applicant respectfully requests the rejection of claims 1-14 under 35 U.S.C. § 103(a) be reconsidered and removed.


Conclusion

Applicants respectfully requests early consideration of the present application, entry of all amendments herein requested, and allowance of all pending claims.

The Examiner is respectfully invited to contact Todd W. Galinski at (919) 468-5979 ex6204, to discuss any matter relating to this application.

Respectfully submitted,
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